

Exercise 1 Let $f(x) = \frac{1}{x^2}$.

(a) Compute $AV_{[2,4]}$.

$$AV_{[2,4]} = \boxed{-\frac{3}{16}}.$$

(b) Compute $AV_{[100,101]}$.

$$AV_{[100,101]} = \boxed{-\frac{201}{102010000}}.$$